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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/846,762	05/01/2001	Robert Shea	31910.000014	5008

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EXAMINER

JIMENEZ, MARC QUEMUEL

ART UNIT	PAPER NUMBER
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3726

DATE MAILED: 04/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/846,762

Applicant(s)

SHEA ET AL.

Examiner

Marc Jimenez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 5/1/2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: \_\_\_\_\_

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**DETAILED ACTION**

***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "thin layer 52" as described in the specification at page 8, line 13. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 12, 14, and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 recites "the metal tube" in line 2 which lacks proper antecedent basis. Claim 14 recites "the plastic tube" which lacks proper antecedent basis. Claim 21 is incomplete.

Note that the art rejections to Claims 12 and 14 are based on the disclosed roll structure since the claim limitations in Claims 12 and 14 are unclear.

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*Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1, 3-5, 9, 15, 16, 19-22, 24, and 25** are rejected under 35 U.S.C. 102(b) as being anticipated by Krupp (4,385,683).

Krupp teaches a roller for a roller assembly, the roller comprising: a shaft 12, a first tire 20 mounted relative to the shaft 12, the first tire 20 including: a compliant (col. 3, line 53) core 18 affixed relative to the shaft 12 for rotation with the shaft 12, and a non-compliant layer 14 connected to the core 18 for rotation with the core 18. The limitation that the shaft has a linear variance less than 0.03 inches per linear foot does not further the structural limitations of the roller and therefore has not been given patentable weight. Note that Krupp teaches that the compliant core 18 comprises an open cell structure (col. 3, lines 9-10, ie. “foam”) and a second tire on the shaft. It is inherent that the non-compliant layer of Krupp has a durometer greater than 35 Shore A since it is made of either ceramic, glass, or other porcelain. The surface of the non-compliant layer has a coefficient of friction enhancing surface.

6. **Claims 1-6, 8-11, and 20-25** are rejected under 35 U.S.C. 102(b) as being anticipated by Okumura et al. (4,517,719).

Okumura et al. teach a shaft 1, a first tire 11 mounted relative to the shaft 1, the first tire

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11 including: a compliant/cellular/open cell structure core 4 affixed relative to the shaft 1 for rotation with the shaft 1, and a non-compliant layer 8 made of metal tube (col. 4, line 18) connected to the core 4 for rotation with the core 4. Note that the shaft could be made of plastic (col. 4, line 18, ie. "synthetic resin"). The cellular structure 4 is made of polyurethane (col. 4, line 32). Since the non-compliant layer 8 is made of a metal tube, it has the claimed durometer.

7. **Claims 1, 3-10, 13, and 20-25** are rejected under 35 U.S.C. 102(b) as being anticipated by Blackwood et al. (4,440,295).

Blackwood et al. teach a shaft (abstract, line 7), a first tire 1 mounted relative to the shaft, the first tire including: a compliant core 2 affixed relative to the shaft, for rotation with the shaft, and a non-compliant layer 3 connected to the core 2 for rotation with the core 2. The non-compliant layer has a durometer greater than 35 and less than 60 Shore A (col. 2, line 24).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 2, 6, 7, 11, 13, 17, 18, and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Krupp.

With respect to Claim 2, Krupp teaches the invention cited above with the exception of

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the shaft comprising a plastic shaft.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have made the shaft of Krupp with plastic, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. Also, official notice is taken that it is well known in the art to use plastic shafts.

With respect to Claim 6, Krupp teaches the invention cited above with the exception of the cellular structure comprising polyurethane.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to use a polyurethane as the cellular structure because applicant has not disclosed that using polyurethane provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with either the cellular structure taught by Krupp or the claimed polyurethane structure because both cellular structures perform the same function of providing a compliant layer equally well considering the desired amount of compression properties required.

With respect to Claims 7, 11, 13, 17, 18, and 23, Krupp teaches the invention cited above with the exception of the non-compliant layer comprising a layer of elastomeric material, a metal tube, a plastic tube, a layer of elastomeric layer, or a layer of synthetic rubber.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to use either a layer of elastomeric material, a metal tube, a plastic tube, a layer of elastomeric layer, or a layer of synthetic rubber for the non-

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compliant layer, because applicant has not disclosed that using either a layer of elastomeric material, a metal tube, a plastic tube, a layer of elastomeric layer, or a layer of synthetic rubber for the non-compliant layer provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with either the ceramic non-compliant layer taught by Krupp or the claimed either a layer of elastomeric material, a metal tube, a plastic tube, a layer of elastomeric layer, or a layer of synthetic rubber for the non-compliant layer because either materials perform the same function of providing a non-compliant layer equally well.

10. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over Krupp in view of Hiroya (JP 05-035110).

Krupp teaches the invention cited above with the exception of the cellular structure comprising polyurethane.

Hiroya teaches a cellular structure 2 comprising polyurethane.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Krupp with a polyurethane cellular structure, in light of the teachings of Hiroya, in order to provide a cellular structure of low density.

11. **Claims 7, 13, 17, 18, and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Krupp in view of Eiji (JP 08169573).

Krupp teaches the invention cited above with the exception of the non-compliant layer comprising a layer of elastomeric material/plastic tube/synthetic rubber.

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Eiji teaches a layer of elastomeric material/plastic tube/synthetic rubber **3b** over a foam layer **3a**.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Krupp with a layer of elastomeric material/plastic tube/synthetic rubber for the non-compliant layer, in light of the teachings of Eiji, in order to provide a layer that provides a better gripping surface.

12. **Claim 12** is rejected under 35 U.S.C. 103(a) as being unpatentable over Okumura et al. in view of Sawa et al. (5,553,845).

Okumura et al. teach the invention cited above with the exception of having a coefficient of friction enhancing material on the tube.

Sawa et al. teach a coefficient of friction (abstract, lines 1-2) enhancing material **7** on a tube **4**.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Okumura et al. with a coefficient of friction enhancing material on the tube, in light of the teachings of Sawa et al., in order to provide a surface which has good friction and is not affected by changes in temperature or humidity (as suggested by Sawa et al., abstract, lines 1-3).

13. **Claim 14** is rejected under 35 U.S.C. 103(a) as being unpatentable over Blackwood et al. in view of Sawa et al.

Blackwood et al. teach the invention cited above with the exception of having a



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coefficient of friction enhancing material on the tube.

Sawa et al. teach a coefficient of friction (abstract, lines 1-2) enhancing material 7 on a tube 4.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Blackwood et al. with a coefficient of friction enhancing material on the tube, in light of the teachings of Sawa et al., in order to provide a surface which has good friction and is not affected by changes in temperature or humidity (as suggested by Sawa et al., abstract, lines 1-3).

#### ***Contact Information***

14. Telephone inquiries regarding the status of applications or other general questions, by persons entitled to the information, should be directed to the group clerical personnel. In as much as the official records and applications are located in the clerical section of the examining groups, the clerical personnel can readily provide status information. M.P.E.P. 203.08. The Group clerical receptionist number is (703) 308-1148.

If in receiving this Office Action it is apparent to applicant that certain documents are missing, e.g., copies of references cited, form PTO-1449, form PTO-892, etc., requests for copies of such papers or other general questions should be directed to Tech Center 3700 Customer Service at (703) 306-5648, or fax (703) 872-9301 or by email to [CustomerService3700@uspto.gov](mailto:CustomerService3700@uspto.gov).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Jimenez whose telephone number is 703-306-5965. The

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examiner can normally be reached on **Monday-Thursday and the second Friday of the bi-week, between 9am-6pm.**

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Hughes can be reached on 703-308-1806. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

Other helpful telephone numbers are listed for applicant's benefit.


Allowed Files & Publication	(703) 308-6789 or (888) 786-0101
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PCT Help Desk	(703) 305-3257

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MJ

April 16, 2002

  
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